



## Complete Summary

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### **GUIDELINE TITLE**

Laparoscopy for non-palpable testicle. In: Diagnostic laparoscopy guidelines.

### **BIBLIOGRAPHIC SOURCE(S)**

Laparoscopy for non-palpable testicle. In: Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). Diagnostic laparoscopy guidelines. Los Angeles (CA): Society of American Gastrointestinal and Endoscopic Surgeons (SAGES); 2007 Nov. p. 65-8.

### **GUIDELINE STATUS**

This is the current release of the guideline.

This guideline updates a previous version: Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). SAGES guidelines for diagnostic laparoscopy. Los Angeles (CA): Society of American Gastrointestinal and Endoscopic Surgeons (SAGES); 2002 Mar. 5 p.

## **COMPLETE SUMMARY CONTENT**

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## **SCOPE**

### **DISEASE/CONDITION(S)**

Non-palpable testis

### **GUIDELINE CATEGORY**

Diagnosis  
Evaluation

## **CLINICAL SPECIALTY**

Pediatrics  
Surgery  
Urology

## **INTENDED USERS**

Physicians

## **GUIDELINE OBJECTIVE(S)**

- To assist surgeons' decisions about the appropriate use of diagnostic laparoscopy in male children with non-palpable testis
- To update the previous 2002 guidelines on this topic

## **TARGET POPULATION**

Pediatric male patients with non-palpable testis on physical exam

## **INTERVENTIONS AND PRACTICES CONSIDERED**

Diagnostic laparoscopy in pediatric male patients with non-palpable testis

## **MAJOR OUTCOMES CONSIDERED**

- Procedure-related/intraoperative complications
- Procedure-related morbidity

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Hand-searches of Published Literature (Primary Sources)  
Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

A systematic literature search of MEDLINE for the period 1995-2005 was limited to English language articles. The search strategy is shown in Figure 1 in the original guideline document. Using the same strategy, the Cochrane database of evidence-based reviews and the Database of Abstracts of Reviews of Effects (DARE) were searched.

Abstracts were reviewed by three committee members and into the following categories:

- Randomized studies, meta-analyses, and systematic reviews
- Prospective studies
- Retrospective studies

- Case reports
- Review articles

Randomized controlled trials, meta-analyses, and systematic reviews were selected for further review along with prospective and retrospective studies that included at least 50 patients; studies with smaller samples were reviewed when other available evidence was lacking. The most recent reviews were also included. All case reports, old reviews, and smaller studies were excluded.

The reviewers graded the level of evidence of each article and manually searched the bibliographies for additional articles that may have been missed by the search. Any additional relevant articles were included in the review and grading.

## **NUMBER OF SOURCE DOCUMENTS**

Not stated

## **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Weighting According to a Rating Scheme (Scheme Given)

## **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

### **Levels of Evidence**

Level I	Evidence from properly conducted randomized, controlled trials
Level II	Evidence from controlled trials without randomization Or Cohort or case-control studies Or Multiple time series, dramatic uncontrolled experiments
Level III	Descriptive case series, opinions of expert panels

## **METHODS USED TO ANALYZE THE EVIDENCE**

Systematic Review

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

To maximize the efficiency of the review, articles were divided into three subject categories:

- Staging laparoscopy for cancer
- Diagnostic laparoscopy for acute conditions

- Diagnostic laparoscopy for chronic conditions

Reviewers graded the level of each article (see "Rating Scheme for the Strength of the Evidence.")

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

### **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

The guidelines were developed under the auspices of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) and revised by the SAGES Guidelines Committee.

The statements included in this guideline are the product of a systematic review of published work on the topic, and the recommendations are explicitly linked to the supporting evidence. The strengths and weaknesses of the available evidence are described and expert opinion sought where the evidence is lacking. This is an update of previous guidelines on this topic (last revision 2002) as new information has accumulated.

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

### **Scale Used for Recommendation Grading**

Grade A	Based on high-level (level I or II), well-performed studies with uniform interpretation and conclusions by the expert panel
Grade B	Based on high-level, well-performed studies with varying interpretation and conclusions by the expert panel
Grade C	Based on lower-level evidence (level II or less) with inconsistent findings and/or varying interpretations or conclusions by the expert panel

## **COST ANALYSIS**

The literature was reviewed for published cost analyses. No evidence exists on the cost-effectiveness of diagnostic laparoscopy for non-palpable testis.

## **METHOD OF GUIDELINE VALIDATION**

Internal Peer Review

### **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

The recommendations of each guideline undergo multidisciplinary review and are considered valid at the time of production based on the data available. This statement was reviewed by the Board of Governors of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), November 2007.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

Definitions of the levels of evidence (**I, II, III**) and the grades of the recommendations (**A, B, C**) are provided at the end of the "Major Recommendations" field.

#### General Recommendations for Diagnostic Laparoscopy

Diagnostic laparoscopy (DL) is a safe and well tolerated procedure that can be performed in an inpatient or outpatient setting under general or occasionally local anesthesia with intravenous sedation in carefully selected patients. DL should be performed by physicians trained in laparoscopic techniques who can recognize and treat common complications and can perform additional therapeutic procedures when indicated. During the procedure, the patient should be continuously monitored, and resuscitation capability must be immediately available. Laparoscopy must be performed using sterile technique along with meticulous disinfection of the laparoscopic equipment. Overnight observation may be appropriate in some outpatients.

#### Laparoscopy for Non-palpable Testis

##### Technique

In the operating room under general anesthesia, a second manual palpation is performed to check for testes in the inguinal canal or scrotum. If none is found, the patient is prepped and draped in the usual manner. The primary port is inserted in the periumbilical region. A 5-mm port is placed in the contralateral lower abdominal quadrant for manipulation. A second port can be used for laparoscopic clipping and division of testicular vessels where necessary for the first part of the two-part staged Fowler-Stevens orchiopexy. During this part of the procedure, the testicle is identified and its relation to the spermatic vessels and internal inguinal ring ascertained. A testicle that is normal size for the patient's age should be salvaged, whereas a testicle that is non-viable should be removed. If no testicle is identified on laparoscopy and blind ending spermatic vessels are seen, the testicle has atrophied and the procedure is terminated. If no testicle is identified, no spermatic vessels are seen, and only the vas deferens is seen going into the inguinal canal, the laparoscopic dissection must continue higher in the retroperitoneum in search of the undescended testicle. The second stage of the procedure is usually performed approximately 6 months later through a high groin incision mobilizing the testicle into the scrotum.

##### Indications

Identification of a non-palpable testis on physical exam.

##### Recommendations

Patients undergoing DL for non-palpable testis should have physical examination of the groin under anesthesia before the procedure is started as this approach will

identify up to 18% of testicles and obviate the need for the procedure (**Grade A**). DL should be part of the treatment algorithm of patients with non-palpable testis as it is likely to improve patient outcomes; however, further higher quality study is needed. (**Grade C**).

For details of the rationale for the procedure and its diagnostic accuracy, see the original guideline document.

## Definitions:

### Levels of Evidence

Level I	Evidence from properly conducted randomized, controlled trials
Level II	Evidence from controlled trials without randomization  Or  Cohort of case-control studies  Or  Multiple time series, dramatic uncontrolled experiments
Level III	Descriptive case series, opinions of expert panels

### Scale Used for Recommendation Grading

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Grade B	Based on high-level, well-performed studies with varying interpretation and conclusions by the expert panel
Grade C	Based on lower-level evidence (level II or less) with inconsistent findings and/or varying interpretations or conclusions by the expert panel

## CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Decreased morbidity, less pain, and earlier recovery compared with open exploration

### POTENTIAL HARMS

Procedure- and anesthesia-related complications (see "Procedure-related Complications and Patient Outcomes" section in the original guideline document)

## CONTRAINDICATIONS

### CONTRAINDICATIONS

- Inability to tolerate the procedure
- Dense abdominal adhesions that may preclude safe access and/or dissection

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

Clinical practice guidelines are intended to indicate the best available approach to medical conditions as established by systematic review of available data and expert opinion. The approach suggested may not be the only acceptable approach given the complexity of the health care environment. These guidelines are intended to be flexible, as the surgeon must always choose the approach best suited to the patient and variables in existence at the time of the decision.

#### Limitations of the Available Literature

The quality of the available literature for laparoscopy in the management of non-palpable testis is limited to level III evidence. No studies compare the open and laparoscopic approach with regard to patient morbidity, and there is inconsistency in the use of preoperative localization studies before laparoscopy. These limitations make strong recommendations difficult.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

### IMPLEMENTATION TOOLS

Foreign Language Translations  
Patient Resources

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better

### IOM DOMAIN

Effectiveness  
Patient-centeredness  
Safety

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

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### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

1998 Apr (revised 2007 Nov)

### GUIDELINE DEVELOPER(S)

Society of American Gastrointestinal and Endoscopic Surgeons - Medical Specialty Society

### SOURCE(S) OF FUNDING

Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)

### GUIDELINE COMMITTEE

Guidelines Committee

### COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated



## **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Members of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) disclose potential conflicts of interest and pertinent financial relationships prior to serving as faculty for SAGES-sponsored educational events, delivering presentations at scientific meetings, etc. Additionally, members of SAGES Committees disclose their potential conflicts of interest and pertinent financial relationships annually as a condition of committee membership.

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## **GUIDELINE AVAILABILITY**

Electronic copies: Available from the [Society of American Gastrointestinal and Endoscopic Surgeons \(SAGES\) Web site](#).

Print copies: Available from the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), 11300 W. Olympic Blvd., Suite 600, Los Angeles, CA 90064; Web site: [www.sages.org](http://www.sages.org).

## **AVAILABILITY OF COMPANION DOCUMENTS**

None available

## **PATIENT RESOURCES**

The following is available:

- Patient information for diagnostic laparoscopy from SAGES. Available in English and Polish from the [Society of American Gastrointestinal and Endoscopic Surgeons \(SAGES\) Web site](#).

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

## **NGC STATUS**

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